

Amendments to the Claims:

Claims 1-25 (canceled)

26. (new) A purifying apparatus for purifying water flowing in a flowing direction over a flowing-water bed, comprising: a negative electrode plate to be disposed on the flowing-water bed; and a positive electrode plate to be disposed at an upper surface of the flowing water opposite to the negative electrode plate so as to have upstream and downstream end portions and opposing side portions with respect to the flowing direction of the water; said positive electrode plate being adapted so as to be dipped below the upper surface of the flowing water with floats being disposed at least at one of the upstream and downstream end portions of the positive electrode plate and the opposing side portions of the positive electrode plate; wherein structure is provided to position said positive electrode plate at a position of the upper surface of the flowing water opposite the negative electrode plate; and wherein said positive electrode plate and said negative electrode plate are provided with an electric field generator so that water pollution substances contained in the flowing water are oxidized and decomposed by a generation of high electric field pulses; and wherein said positive electrode plate has a concave curved face opposite to said negative electrode plate.

27. (new) A purifying apparatus of claim 26, wherein the positive electrode plate is coupled to vertical-movement structure that allows for vertical movement of said positive electrode plate; and wherein said vertical-movement structure is provided with a differential transformer, thereby constituting a control mechanism for changing a voltage between faces of the positive electrode plate and the negative electrode plate between 200 V/cm and 10 KV/cm

28. (new) A purifying apparatus of claim 27, wherein there is provided an emergency evacuation unit for lifting up the vertical-movement structure in an upward direction by an oil pressure or an electric motor upon occurrence of an abnormal flow rate of the flowing water.

29. (new) A purifying apparatus of claim 26, further comprising a gas collecting unit arranged at the downstream end portion of said positive electrode plate at an upper face side thereof.

30. (new) A purifying apparatus of claim 29, wherein said gas collecting unit comprises a gas reservoir, and said gas reservoir is provided with a mechanism for sucking gas into the gas reservoir by a water pressure, a suction pump or a blower, mixing the gas with hydrogen gas by an electrolysis or hydrogen gas by a hydrogen bomb, and reducing the gas to N₂ and water by a catalyst.

31. (new) A purifying apparatus of claim 26, wherein said positive electrode plate is provided with a gas seal to seal against flow of gas therethrough.

32. (new) A purifying apparatus of claim 30, wherein the gas seal is arranged on a face of said positive electrode plate that faces away from said negative electrode plate.

33. (new) A purifying apparatus of claim 26, wherein a turbidity detector is provided at a location to be upstream of said positive electrode plate, thereby constituting an automatic control mechanism for changing an electric current value between 1 mA and 100 mA in compliance with the turbidity.

34. (new) A purifying apparatus of claim 26, wherein a flow velocity meter is installed in the flowing water, thereby constituting an automatic control mechanism for changing a frequency between 10 kHz and 150 kHz based on the flow velocity.

35. (new) A purifying apparatus of claim 26, wherein there is adjunctively provided, together with a unit for collecting and separating sediments generated by a suspension, a sedimentation tank decreasing the flow velocity in a rear of the unit in the flowing direction, or there is adjunctively provided a system in which a water flow is dammed and a part thereof is pumped up by a pump so as to be bypassed from the water flow and the sediments are deposited in a gravity sedimentation tank, and a supernatant liquid is returned to an original river.

36. (new) A purifying method for flowing water, characterized in that the flowing water is treated by using an apparatus of claim 26.

37. (new) A purifying apparatus for purifying water flowing in a flowing direction over a flowing-water bed, comprising: a negative electrode plate to be disposed on the flowing water bed; and a positive electrode plate to be disposed at an upper surface of the flowing water opposite to the negative electrode plate so as to have upstream and downstream end portions and opposing side portions with respect to the flowing direction of the water; said positive electrode plate being adapted so as to be dipped below the upper surface of the flowing water with floats being disposed at least at one of the upstream and downstream end portions of the positive electrode plate and the opposing side portions of the positive electrode plate; wherein structure is provided to position said positive electrode plate at a position of the upper surface of the flowing water opposite the negative electrode plate; and wherein said positive electrode plate and said negative electrode plate are provided with an electric field generator so that water pollution substances contained in the flowing water are oxidized and decomposed by a generation of high electric field pulses; and wherein a turbidity detector is provided at a location to be upstream of

said positive electrode plate, thereby constituting an automatic control mechanism for changing an electric current value between 1 mA and 100 mA in compliance with the turbidity.

38. (new) A purifying apparatus for purifying water flowing in a flowing direction over a flowing-water bed, comprising: a negative electrode plate to be disposed on the flowing water bed; and a positive electrode plate to be disposed at an upper surface of the flowing water opposite to the negative electrode plate so as to have upstream and downstream end portions and opposing side portions with respect to the flowing direction of the water; said positive electrode plate being adapted so as to be dipped below the upper surface of the flowing water with floats being disposed at least at one of the upstream and downstream end portions of the positive electrode plate and the opposing side portions of the positive electrode plate; wherein structure is provided to position said positive electrode plate at a position of the upper surface of the flowing water opposite the negative electrode plate; and wherein said positive electrode plate and said negative electrode plate are provided with an electric field generator so that water pollution substances contained in the flowing water are oxidized and decomposed by a generation of high electric field pulses; and wherein a flow velocity meter is installed in the flowing water, thereby constituting an automatic control mechanism for changing a frequency between 10 kHz and 150 kHz based on the flow velocity.

39. (new) A purifying apparatus for purifying water flowing in a flowing direction over a flowing-water bed, comprising: a negative electrode plate to be disposed on the flowing water bed; and a positive electrode plate to be disposed at an upper surface of the flowing water opposite to the negative electrode plate so as to have upstream and downstream end portions and opposing side portions with respect to the flowing direction of the water; said positive electrode plate being adapted so as to be dipped below the upper surface of the flowing water with floats being disposed at least at one of the upstream and downstream end portions of the positive electrode plate and the opposing side portions of the positive electrode plate; wherein structure is

provided to position said positive electrode plate at a position of the upper surface of the flowing water opposite the negative electrode plate; and wherein said positive electrode plate and said negative electrode plate are provided with an electric field generator so that water pollution substances contained in the flowing water are oxidized and decomposed by a generation of high electric field pulses; and wherein there is adjunctively provided, together with a unit for collecting and separating sediments generated by a suspension, a sedimentation tank decreasing the flow velocity in a rear of the unit in the flowing direction, or there is adjunctively provided a system in which a water flow is dammed and a part thereof is pumped up by a pump so as to be bypassed from the water flow and the sediments are deposited in a gravity sedimentation tank, and a supernatant liquid is returned to an original river.